

What is claimed is:

1. A recombinant cell line for assessing therapeutic agents that regulate apoptosis, comprising:

a) a first plasmid expressing a p300 responsive promoter operably linked to a first reporter gene;

b) a second plasmid expressing a non p300 responsive promoter operably linked to a second reporter gene; and

c) a third plasmid expressing a selectable marker gene.

2. The cell line of claim 1, said cell line being stably transfected with an additional plasmid encoding wild -type p300 to augment endogenously expressed p300 protein levels.

3. A screening method for determining if a therapeutic reagent inhibits p300 activity thereby inducing apoptosis, comprising:

a) contacting recombinant cells with said therapeutic agent, said cells containing

i) a first plasmid expressing a p300 responsive promoter operably linked to a first reporter gene;

ii) a second plasmid expressing a non p300 responsive promoter operably linked to a second reporter gene; and

iii) a third plasmid expressing a selectable marker gene;

b) assessing cells for repression of the p300 responsive reporter gene by said therapeutic reagent; and

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c) assessing cells for repression of the non-p300 responsive reporter gene by said therapeutic reagent, repression in step b) and not step c) indicating that the compound inhibits p300 transactivation and thereby induces apoptosis.

4. A recombinant cell line for assessing therapeutic agents that regulate apoptosis, comprising:

- a) a first plasmid expressing Btf; and
- b) a second plasmid expressing a Bcl-2.

5. A screening method for determining if a therapeutic reagent inhibits Bcl-2 binding to Btf thereby inducing apoptosis, comprising:

- a) contacting recombinant cells with said therapeutic agent, said cells containing
 - i) a first plasmid expressing btf;
 - ii) a second plasmid expressing Bcl-2;
- b) assessing cells for disruption of Bcl-2 binding to btf by said therapeutic reagent; and
- c) determining whether said disruption induces apoptosis in said recombinant cells.

6. A method for detecting the presence of btf encoding nucleic acids in a tumor sample, comprising:

- a) obtaining a tumor sample suspected of containing a deletion of btf encoding nucleic acids;
- b) isolating DNA from said sample;
- c) contacting said DNA with a nucleic acid comprising a sequence of SEQ ID NO: 1 under conditions whereby said DNA will hybridize with SEQ ID NO:1, if said sample contains btf hybridizable nucleic acids; and
- d) detecting said hybridization if any.

7. A method for detecting Btf protein in a tumor sample, comprising:

- a) providing a tumor sample;
- b) contacting said sample with an antibody immunologically specific for Btf under conditions whereby said antibody will bind said Btf if present; and
- c) detecting said antibody-Btf complex in said sample.

8. A method for introducing btf encoding nucleic acids into a host cell, comprising:

- a) providing a btf encoding nucleic acid in a suitable expression vector, and
- b) delivering said btf encoding nucleic acid to said cell in an effective amount to produce Btf protein.